O!P E JC196
SEP 0 2 2004
PATENT & TRADEMARK OFFICE

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 1

Complete if Known	
Application Number	10/681,540
Filing Date	October 7, 2003
First Named Inventor	Frank H. Gaertner
Group Art Unit	1646
Examiner Name	Unknown
Attorney Docket Number	DAS-103XC1

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
NV	R1	STEIDLER, L. (2002) "*In situ* delivery of cytokines by genetically engineered *Lactococcus lactis*" *Antonie van Leeuwenhoek* 82:323-331.	
NV	R2	STEIDLER, L. *et al.* (1998) "Mucosal delivery of murine interleukin-2 (IL-2) and IL-6 by recombinant strains fo *Lactococcus lactis* coexpressing antigen and cytokine" *Infection and Immunity* 66(7):3183-3189.	
NV	R3	CARRIER, M.J. *et al.* (1992) "Expression of human IL-1ß in *Salmonella typhimurium.* A model system for the delivery of recombinant therapeutic proteins *in vivo*" *J. Immunol.* 148(4):1176-1181.	
	R4.		
	R5		
	R6		
	R7		
	R8		
	R9		
	R10		
	R11		
	R12		
	R13		

Examiner Signature	/Nancy Vogel/	Date Considered	09/11/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

OIPE
NOV 12 2004
PATENT & TRADEMARK OFFICE

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	1

Complete if Known	
Application Number	10/681,540
Filing Date	October 7, 2003
First Named Inventor	Frank H. Gaertner
Art Unit	1646
Examiner Name	Unknown
Attorney Docket Number	DAS-103XC1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number - Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
NV ✓	U1	US-4,695,455	09-22-1987	Barnes, *et al.* ✓	All
NV ✓	U2	US-6,121,247	09-19-2000	Huang *et al.*	All
	U3	US-			
	U4	US-			
	U5	US-			
	U6	US-			
	U7	US-			
	U8	US-			
	U9	US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] - Number[4] - Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	F1					
	F2					
	F3					
	F4					
	F5					
	F6					
	F7					

Examiner Signature	/Nancy Vogel/	Date Considered	09/11/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard T.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

OIPE JC64
MAY 07 2004
U.S. PATENT & TRADEMARK OFFICE

PTO/SB/08A (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known	
Application Number	10/681,540
Filing Date	October 7, 2003
First Named Inventor	Frank H. Gaertner
Art Unit	
Examiner Name	
Attorney Docket Number	DAS-103XC1

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number - Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
NV	U1	US-5,281,532	01-25-1994	Rammler et al.	All
NV	U2	US-4,695,462	09-22-1987	✓Barnes et al.	All
	U3	US-			
	U4	US-			
	U5	US-			
	U6	US-			
	U7	US-			
	U8	US-			
	U9	US-			

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] - Number[4] - Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
	F1					
	F2					
	F3					
	F4					
	F5					
	F6					
	F7					

Examiner Signature	/Nancy Vogel/	Date Considered	09/11/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1] Applicant's unique citation designation number (optional). [2] See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP901.04. [3] Enter Office that issued the document, by the two-letter code (WIPO Standard T.3). [4] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [5] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

OIPE JC64
MAY 0 7 2004
PATENT & TRADEMARK OFFICE

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 2 of 3

Complete if Known	
Application Number	10/681,540
Filing Date	October 7, 2003
First Named Inventor	Frank H. Gaertner
Group Art Unit	
Examiner Name	
Attorney Docket Number	DAS-103XC1

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
NV	R1	ADA, G. *et al.* "Overview of Host Defense Mechanisms with Special Reference to Viral Infections, Gamma Interferon in Antiviral Defense, 1997, pp. 1-18, Chapman & Hall, New. York	
	R2	ANDERSON, K.P. *et al.* "Enhancement Of a Secondary Antibody Response to Vesicular Stomatitis Virus 'G' Protein By IFN-Gamma Treatment at Primary Immunization", *J.Immunol.*, 1988, pp. 3599-3604, Vol. 140, No. 10.	
	R3	BABIUK, L.A. *et al.* "Application of Interferons In The Control of Infectious Diseases of Cattle", *Journal of Dairy Science*, 1991, pp. 4385-4398, Vol. 74, No. 12.	
	R4	CERRETTI, D.P., *et al.* "Cloning, Sequence, and Expression of Bovine Interferon-Gamma", *J.Immunol.*, 1986, pp. 4561-4564, Vol. 136, No. 12.	
	R5	FOX, L.K., *et al.* "The Effect Of Interferon-Gamma Intramammary Administration on Mammary Phagocyte Function", *J. Vet. Med B*, 1990, pp. 28-30, Vol. 37, Paul Parey Scientific Publishers, Berlin and Hamburg.	
	R6	FRANSEN, L. *et al.* "Recombinant Tumor Necrosis Factor: Species Specificity For a Variety of Human and Murine Transformed Cell Lines", *Cell. Immunol.*, 1986, pp. 260-267, Vol. 100.	
	R7	FRIEDMAN, R.M. *et al.* "Interferons with Special Emphasis on the Immune System", *Adv. Immunol.*, 1983, pp. 97-140, Vol. 34.	
	R8	GAERTNER, F.H. *et al.* "CellCap: An Encapsulation System for Insecticidal Biotoxin Proteins", Advanced Engineered Pesticides, 1993, pp. 73-83, Marcel Dekker, New York.	
	R9	GOUGH, R.E., *et al.*, "Further Studies On The Adjuvant Effect Of an Interferon Inducer (Brl-5907) on Newcastle Disease and Avian Influenza Inactivated Vaccines", *Res. Vet. Sci.*, 1975, pp. 185-188, Vol. 19.	
	R10	GRESSER, I., *et al.* "Anti-Tumor Effects of Interferon In Mice Injected With Interferon-Sensitive and Interferon-Resistant Friend Leukemia Cells. VI. Adjuvant Therapy After Surgery in the Inhibition of Liver and Spleen Metastases", *Int. J. Cancer*, 1987, pp. 789-792, Vol. 39.	
	R11	KNIGHT Jr., E., "Antiviral and Cell Growth Inhibitory Activities Reside In The Same Glycoprotein Of Human Fibroblast Interferon", *Nature*, 1976, pp. 302-303, Vol. 262.	
	R12	LOFTHOUSE, S.A. *et al.* "Cytokines as Adjuvants For Ruminant Vaccines", *International Journal for Parasitology*, 1996, pp. 835-842, Vol. 26, No. 8/9.	
	R13	MICHALSKI, W.P. *et al.* "Recombinant Chicken IFN-Gamma Expressed In Escherichia Coli: Analysis Of C-Terminal Truncation and Effect on Biologic Activity", *J.Interferon Cytokine Res.*, 1999, p. 383-392, Vol. 19.	

Examiner Signature	/Nancy Vogel/	Date Considered	09/11/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

OIPE JC64 MAY 0 7 2004 PATENT & TRADEMARK OFFICE

PTO/SB/08B (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 3 of 3

Complete if Known	
Application Number	10/681,540
Filing Date	October 7, 2003
First Named Inventor	Frank H. Gaertner
Group Art Unit	
Examiner Name	
Attorney Docket Number	DAS-103XC1

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
NV ✓	R14	OPDENAKKER, G. *et al.* "Interaction of Interferon With Other Cytokines", *Experientia,* 1989, pp. 513-520, Vol. 45.	
✓	R15	PERUSSIA, B., *et al.* "Immune Interferon Induces The Receptor For Monomeric IgG1 on Human Monocytic and Myeloid Cells", *J. Exp. Med.,* 1983, pp. 1092-1113, Vol. 158.	
✓	R16	PESTKA, S., *et al.* "Interferons and Their Actions", *Annu. Rev. Biochem.*, 1987, pp. 727-777, Vol. 56.	
✓	R17	PIGHETTI, G.M., *et al.* "Specific Immune Responses of Dairy Cattle After Primary Inoculation with Recombinant Bovine Interferon-Gamma as an Adjuvant When Vaccinating Against Mastitis", *American Journal of Veterinary Research*, 1996, p. 819-824, Vol. 57, No. 6.	
✓	R18	SORDILLO, L.M., *et al.* "Controlling Acute Escherichia Coli Mastitis During the Periparturient Period with Recombinant Bovine Interferon-Gamma", *Veterinary Microbiology,* 1991, pp. 189-198, Vol. 28.	
✓	R19	STEINBECK, M.J., *et al.* "Activation of Bovine Neutrophils By Recombinant Interferon-Gamma", *Cell. Immunol.*, 1986, pp. 137-144, Vol. 98.	
✓	R20	VILCEK, J., *et al.* "Interferon and the Immune System", Interferon, 1984, Vol. 2, Elsevier, Amsterdam.	
✓	R21	YILMA, T.K. *et al.* "Expression of an Adjuvant Gene (Interferon-Gamma) in Infectious Vaccinia Virus Recombinants", Vaccines 87: Modern Approaches to New Vaccines, 1987, pp. 393-396, Cold Spring Harbor, New York.	
✓	R22	YILMA, T. *et al.* "Enhancement of Primary and Secondary Immune Responses By Interferon-Gamma", *Adv.Exp.Med.Biol.* 1989, pp. 145-152, Vol. 251	
	R23	YIP, Y.K., *et al.* "Purification and Structural-Functional Characterization of Human Immune Interferon", *J. Biol. Chem.*,1984, p. 283, Vol. 3.	
✓	R24	ZUFFA, A. *et al.* "Protection of Cattle Vaccinated With Inactivated Oil Adjuvant Infectious Bovine Rhino Tracheitis Vaccine Against Experimental Infection", *Zbl. Vet. Med. B.*, 1980, pp. 725-733, Vol. 27.	
	R25		
	R26		

Examiner Signature	/Nancy Vogel/	Date Considered	09/11/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] Applicant's unique citation designation number (optional). [2] Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.